

**REMARKS/ARGUMENTS**

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Claims 1-5, 8, 10, 11, and 15-23 are amended, and Claim 24 is newly added. Applicants respectfully submit that no new matter has been added. Claims 7, 9, and 12-14 were canceled in a previous response. After amending the claims as set forth above, Claims 1-5, 8, 10, 11, and 15-24 are now pending in this application.

**I. Priority Claim**

In section 2 of the Office Action, the Examiner alleged that the claimed subject matter is not supported by several of the parent priority applications. Specifically, the Examiner asserted that:

The disclosure of the prior-filed application, Application Nos. 08/746,613, 08/649,419, 08/637,531, 09/186,962 and PCT/US96/06618 each fails to provide adequate support or enablement in the manner provided by the first paragraph of 35 U.S.C. § 112 for one or more claims of this application. *None of these prior applications discloses detecting an embedded signal in the frequency components; based on the detecting, determining geometric transformation parameters defining a geometric transformation of the media signal; and using the geometric transformation parameters to transform the media signal as defined by the claimed invention.*

(Emphasis added).

Applicant respectfully disagrees and submits that the above-referenced elements can be found in at least U.S. Patent App. No. 08/649,419 filed on May 16, 1996 (now U.S. Patent No. 5,862,260). The discussion below references the figures, columns, and line numbers of U.S. Patent No. 5,862,260 ('260 patent).

With respect to “detecting an embedded signal in the one or more frequency components,” as recited in Claim 15, Applicant respectfully submits that such elements are disclosed at least in Figs. 33-37 and col. 75, line 17 – col. 76, line 58 of the ‘260 patent. As an example, col. 75, lines 17-62 disclose in part:

FIG. 33 depicts the first major "search" step in the registration process for gratitudes of the type in FIG. 29. *A suspect image (or a scan of a suspect photograph) is first transformed in its fourier representation using well known 2D FFT routines.* The input image may look like the one in FIG. 36, upper left image. FIG. 33 conceptually represents the case where the image and hence the gratitudes have not been rotated, though the following process fully copes with rotation issues. After the suspect image has been transformed, *the power spectrum of the transform is then calculated*, being simply the square root of the addition of the two squared moduli. ... Then, a normalized power profile is calculated as depicted in both 1022 and 1024, the difference being that one plot is along an angle which does not align with the subliminal gratitudes, and the other plot does align. ... As can be seen in FIG. 33, 1022 and 1024, *a series of peaks (which should be "six" instead of "five" as is drawn) develops when the angle aligns along its proper direction. Detection of these peaks can be effected by setting some threshold on the normalized values*, and integrating their total along the whole radial line. A plot, 1026, from 0 to 90 degrees is depicted in the bottom of FIG. 33, showing that the angle 45 degrees contains the most energy. In practice, *this signal is often much lower than that depicted in this bottom figure, and instead of picking the highest value as the "found rotation angle," one can simply find the top few candidate angles and submit these candidates to the next stages in the process of determining the registration.* It can be appreciated by those practiced in the art that *the foregoing was simply a known signal detection scheme, and that there are dozens of such schemes that can ultimately be created or borrowed.* The simple requirement of the first stage process is to whittle down the candidate rotation angles to just a few, wherein more refined searches can then take over.

(Emphasis added).

Thus, the '260 patent clearly discloses a "signal detection scheme" for "detecting an embedded signal in the one or more frequency components," as recited in Claim 15.

With respect to "based on the detecting, determining one or more geometric transformation parameters defining a geometric transformation of the media signal," as recited in Claim 15, Applicant respectfully submits that such elements are disclosed at least in Fig. 37, col. 75, line 63 – col. 76, line 10, and col. 76, lines 11-59 of the '260 patent. Step 13 of Fig. 37 states that "Rotation and Scale Now Found" and step 15 states "Perform Any 'Fine Tuning' to Precisely Determine Rotation, Scale, Offset." Steps 3-7 of Fig. 37 are directed to determining an angle of rotation (e.g., a "geometric transformation paramete[r]") of a signal and steps 9-13 of Fig. 37 describe determining a scale (e.g., another "geometric transformation paramete[r]") of a signal. Column 75, line 63 – col. 76, line 10 of the '260 patent describe determining the scale of a signal and col. 76, lines 11-40 of the '260 patent describe determining a rotational angle of the signal. Column 76, lines 41-59 of the '260 patent describe a fine tuning process such that "the scale and rotation can be found to within the degree set by the noise and cross-talk ...." (Col. 76, lines 52-54). Applicant respectfully submits that one of ordinary skill in the art would readily appreciate that at least rotation and scale refer to "geometric transformation[s]" of a signal and that the values associated with rotation and scale are "geometric transformation parameters" of the signal. Column 75, lines 19-21 of the '260 patent also disclose that the "image ... is first transformed in its fourier representation using well known 2D FFT routines." As such, Applicants respectfully submit that the determination of rotation and scale in the '260 patent are determined "based on the detecting," as claimed.

With respect to "using the one or more geometric transformation parameters to transform the media signal," as recited in claim 15, Applicant respectfully submits that such elements are disclosed at least in col. 91, lines 58-63 of the '260 patent. Column 91, lines 58-63 disclose that:

When the image is to be decoded, the image is transformed into the spatial domain, the Fourier-Mellin technique is applied to match the graticule energy points with their *expected positions*, and the

***processed data is then inverse-transformed***, providing a registered image ready for decoding.

(Emphasis added).

Thus, the '260 patent discloses that the "expected positions" (e.g., positions that are expected based on the determined geometric transformations) are used to inverse-transform the signal. As such, Applicants respectfully submit that the '260 patent discloses "using the one or more geometric transformation parameters to transform the media signal," as recited in claim 15.

For at least these reasons, Applicants respectfully submit that the '260 patent provides support for the claims and that the present application is entitled to a priority date of at least May 16, 1996 based on the filing date of the '260 patent.

## **II. Claim Rejections Under 35 U.S.C. § 135(b)(1)**

In section 3 of the Office Action, Claims 1-6, 8, 10, and 11 were rejected under 35 U.S.C. § 135(b)(1). Specifically, the Examiner asserted that the claims were not entered prior to one year from the date on which U.S. Patent App. Pub. No. 2001/0055390 to Hayashi et al. (Hayashi) was published. Applicants respectfully disagree and traverses the rejection.

35 U.S.C. § 135(b)(2) states that:

A claim which is the same as, or for the same or substantially the same subject matter as, a claim of an application published under section 122(b) of this title may be made in an application filed after the application is published only if the claim is made before 1 year after the date on which the application is published.

Hayashi published on December 27, 2001. The present application was filed on March 9, 2004 and was accompanied by a "Notice of Copied Claims" which stated that:

Claims 1-14 are copied from or substantially similar to claims in US Publication 2001/0055390, published December 27, 2001.  
***These claims previously submitted in the parent application, but were withdrawn in response to a restriction requirement.***

(Emphasis added).

Thus, the claims copied from or substantially similar to the claims from Hayashi were first presented in the parent application U.S. Patent App. No. 10/202,367. The claims were presented in the parent application by way of a preliminary amendment that was faxed to the U.S. PTO on December 24, 2002. December 24, 2002 is within one year of the publication date of Hayashi (e.g., December 27, 2001). With respect to 35 U.S.C. § 135(b)(1), the MPEP states that:

If none of the claims which were present in the application, *or in a parent application, prior to expiration of the one-year period* meets the “substantially the same subject matter” test, the interfering claim should be rejected under 35 U.S.C. 135(b). *In re McGrew*, 120 F.3d 1236, 43 USPQ2d 1632 (Fed. Cir. 1997).

(MPEP § 2304.02(c).II; emphasis added).

Thus, the MPEP indicates that a parent application can satisfy the one year rule and that a rejection under 35 U.S.C. § 135(b) is improper if the interfering claims were presented in a parent application within one year of the publication date of the published application upon which the interfering claims are based. As indicated above, the claims at issue in the present application were first presented in the parent application within one year of the publication date of Hayashi.

For at least these reasons, Applicants respectfully request withdrawal of the rejection under 35 U.S.C. § 135(b).

### **III. Claim Rejections – 35 USC § 103**

In section 5 of the Office Action, Claims 15-23 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over an article titled “Template Based Recovery of Fourier-Based Watermarks Using Log-polar and Log-log Maps” by Pereira et al. (Pereira) in view of U.S. Patent No. 6,173,287 to Daly et al. (Daly). According to the header of the Daly article, it appears that Daly published in June of 1999. As discussed above, Applicants respectfully submit that the

present application has a priority date of at least May 16, 1996 based on the filing date of the parent '260 patent. For at least this reason, Applicants respectfully request withdrawal of the rejection.

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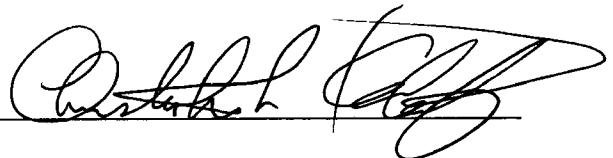
Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested. The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by the credit card payment instructions in EFS-Web being incorrect or absent, resulting in a rejected or incorrect credit card transaction, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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